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SUMMARY OF DANGEROUS GOODS TRAINING COURSES AVAILABLE TO B.C. RESIDENTS

Regional Program Report 84-12

ENVIRONMENTAL EMERGENCY GROUP
ENVIRONMENTAL PROTECTION SERVICE
ENVIRONMENT CANADA
PACIFIC AND YUKON REGION

SUMMARY OF DANGEROUS GOODS TRAINING COURSES AVAILABLE TO B.C. RESIDENTS

Regional Program Report 84-12

By

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ABSTRACT

This report is primarily a catalogue of dangerous goods training courses available to B.C. residents. The courses listed include training for the handlers and transporters of dangerous goods (ie: safety training) and training courses for persons that respond to dangerous goods accidents (ie: response training). The report also contains general comments about the dangerous goods "in house" training courses offered to personnel in private industries or within public agencies.

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1.0 INTRODUCTION

There are a number of dangerous goods training courses available to B.C. residents. However, these courses are not well publicized and information concerning such courses is difficult to find. Therefore for easy reference a list was compiled which consists of a one page summary of each course, including course outline, schedule, fees, location and at least one contact person. The course summaries begin on page 5. The courses were picked either because they occur in B.C. or are aimed at a national audience. We expect this report will eventually be out of date and that the course list or material presented may be incomplete. Therefore, please notify us if there are any omissions or if the reader has any questions.

The likelihood of a dangerous goods incident can be minimized by proper training of the persons involved in the handling and transporting of dangerous goods. To encourage this the Transportation of Dangerous Goods Regulations will probably require that all companies handling dangerous goods properly train their employees (draft TDGA regulations, part IX as publicized in the Canada Gazette I, February, 1984). But no matter how extensive the prevention training is, spills of dangerous goods will inevitably occur.

The consequence of a dangerous goods spill can be reduced by training and educating the persons that respond to dangerous goods accidents. The response person(s) should possess or know where to find knowledge about the material spilled, ie: health hazards, environmental impact, government regulations, and control and cleanup techniques.

The courses reviewed in this report have been directed at different objectives. For example: saving cargo or vehicle versus the safety of the neighbouring community versus the long-term environmental impact. We feel that some adjustment of course content to balance these aspects may be advantageous. This present situation is not unexpected in this time of general uncertainty in the area of dangerous goods regulation.

Communication and cooperation between concerned groups is essential if we are to overcome the dangerous goods problem. Available training courses can effectively bring key people together and provide an accessible forum for discussion.

2.0 DANGEROUS GOODS TRAINING ACTIVITIES UNDERWAY

During the information gathering process other relevant information was obtained and is summarized below.

2.1 Government Agencies

The Canadian Armed Forces have extensive equipment available and training of personnel for response to a possible civil or environmental emergency. Equipment and training are not available to civilians.

The federal TDGA regulations are soon to be promulgated. As a result multimode dangerous goods inspectors are presently being trained for work in various regions within Canada. The inspectors are trained in a four module course prepared by the Dangerous Goods Branch of Transport Canada.

The Workers Compensation Board is involved in accident and spill prevention of dangerous goods in the workplace. Industrial Health and Safety Regulations clearly state that the employer has the responsibility to properly train employees handling dangerous goods and to have products properly labeled and securely stored. The Hazardous Chemical Safety Training Program given by J.T. Baker Co. is recommended by the WCB (see page-10). The WCB has a good selection of environmental, accident and spill prevention information in the form of posters, stickers and pamphlets.

The B.C. Ministry of Highways has contracted with Knezevic & Associates of Vancouver to create a course that will educate weigh scale operators in the area of dangerous goods and TDGA Regulations.

The B.C. Ministry of Agriculture offers about 100 courses to merchants and users of pesticides, fungicides, herbicides, weed control and rodent control products. For further information contact the B.C. Ministry of Agriculture in Victoria.

Fire departments are generally the first agency called upon to respond to a dangerous goods accident. Fire department training instructors attend a variety of dangerous goods courses to gather information and in turn convey it to fire personnel during "in house" training sessions.

2.2 Private Industry

The petroleum and chemical companies are at the centre of the issue as they are involved in the manufacturing, processing, transportation and storage of dangerous goods. As a result, each company has its own team or participates by supporting a special accident response team, e.g. Burrard Clean for the petroleum industry, and CHLOREP for the chloro-alkali industry. Generally speaking, the companies have "in house" safety training for employees only. However, members from each industry are generally the key players in the courses given to or by government emergency personnel. The Petroleum Industry Training Service (PITS) are another excellent organization.

2.3 Transportation and Storage

Shipping, railroad and airline companies have "in house" safety and accident response courses that comply with existing regulations. The courses are for employees only with the exception of Pacific Western Airlines who allow anyone interested to attend their course (see course description in training course summaries page 13).

Although the regulations associated with the Transportation of Dangerous Goods Act have not been finalized, most of the major trucking companies in B.C. that routinely carry dangerous goods have safety and accident response training for their employees. Smaller trucking companies that carry dangerous goods will be participating in the B.C. Motor Transportation Association course that will be created as soon as the TDGA Regulations are finalized.

Public Warehouse operators have decided as a general policy not to store dangerous goods. Therefore, dangerous goods training for their employees has not been considered necessary. The Regional Director for the Canadian Warehousemen's Association stated that "due to the liability associated with dangerous goods it is not economically feasible to store these products because a warehouse owner gets paid the same if he stores radios or caustic soda".

3.0 COURSES

3.1 Oil Spill Training and Clean-up Co-op

Agency: B.C.P.A. Oil Spill Co-op
Contact Person: Martyn Green - ph. 926-7431
Clients: Oil Industry Personnel
Duration: 1 day
Frequency: 20 times per year (approximate)
Location: Various
Cost: None

Course Outline:

Indoor session begins
- training and purpose of exercise
- legislation; existing - review new and proposed
- prevention
- equipment
- trucks/fire

LUNCH
- Hands-On exercise
- boom deployment
- pumps
- porta-tank
- other equipment
- clean-up

Review

Also available is a more in-depth course/lecture given by B.C.P.A. at Fire Commission Course.

3.2 Hazardous Material Seminar II

Agency: Ministry of Attorney-General
Office of the Fire Commissioner
2780 E. Broadway
Vancouver, B.C. V5M 1Y8
251-3131
Contact Person: Ian Faulkner - Fire Academy Co-ordinator
Clients: Industry and Government
Duration: 3 days
***Frequency:** Late 1985
Location: ---
Cost: ---

*Province has been "saturated" - 582 persons have attended 1 of the 5 seminars held over the past few years.

Course Outline:

Disaster response planning
Legal responsibilites
Inter-agency response
Transport Canada regulations
CTC regulations
Tank car functions
Tank truck functions
Response equipment available (Industry)
Response equipment available (Ambulance)
Keeping hazardous materials in tank cars
Environmental aspects of petroleum distribution
Handling emergencies of liquified petroleum tankers
The role of Provincial Emergency Program in an emergency
The role of Waste Management
Case studies of road incidents in B.C.
Many other interesting items

Phase II Seminar is still in the planning stages.
Originally to be Marine and Air - possibility of changing to detailed contingency planning as a result of Salmon Arm Accident.

3.3 Orientation Course for Dangerous Goods Trainers

Agency: Provincial Emergency Program
Ministry of Environment
Government of British Columbia
Victoria, B.C. V8V 1X4
387-5956

Contact Person: J. Baker (Assistant Director)

Clients: See Below**

Duration: 4½ days

Frequency: Spring 1985 (no fixed date at present)

Cost: No course fee

Scope of the Course

The course will include the following subjects:

(a) Legislation - current and future
(b) Model application of regulations
(c) Classification and identification systems including labelling and placarding
(d) Special precautions and considerations to observe at dangerous goods incidents
(e) How and when to obtain technical assistance
(f) Case studies and workshops

****Who Should Attend**

(a) Municipal staff involved in dangerous goods response training, i.e., police, fire, engineering, emergency health service
(b) Area coordinators
(c) Provincial government ministries, crown corporations and government agencies

3.4 Basic Hazardous Material Spill Response

Agency: E.P.S.
Technical Services Branch
Ottawa, Ontario K1A 1C8
819-997-3405

Contact Person: Alain Jolicoeur

Clients: Industry and Government

Duration: 3 days

Frequency: --- Not Yet Determined

Location: ------ The Course is Presently Under Review

Cost: ---

Course Outline:

Environment Canada Develops Spill Response Course

The Environmental Protection Service is fine tuning a spills repsonse training course. Police, firemen and other personnel called to the scene of a chemical spill must be able to recognize the materials and dangers that face them.

The course is designed to help the people who would be the first on the site. It will give them the information needed to protect the environment, and protect themselves.

The Hazardous Materials Spill Response Course is intended to teach the basics of initial spill response. It covers the classes of hazards, their identification, environmental effects, public and personal protection, contingency planning, reporting, disposal, case studies, response assistance and strategy.

3.5.1 The Hazardous Chemical Safety Seminar

Agency: J.T. Baker Chemical Company
Office of Safety Training
Phillipsburg, N.J. 08865
201-859-2151

Contact Person: Carol Morris or William Norton

Clients: See Below**

Duration: 2 days

Frequency: May 2-3, 1985, October 3-4, 1985

Location: Vancouver

Cost: $350 U.S.

Course Outline:

First Day 8:30 a.m.

- Registration
- Introduction - Hazard Analysis
- Fundamentals of Hazardous Chemical Safety
- Flammable Liquids and Solids

LUNCH - 12:00 Noon

- Flammable Materials Workshop - Vapor Phase Explosions, Static Electricity
- Corrosive Chemicals
- Eye and Face Protection and Shielding
- Insidious Hazards

SUMMARY - 4:30 p.m.

Second Day 8:30 a.m.

- Toxic Chemicals
- Toxic Chemical Monitoring
- Chemical Storage - Building Design, Ventilation, Safety Cabinets, Effective Separation of Incompatible Materials
- Sources of Information - Technical Data, The Safety Library

LUNCH - 12:00 noon

3.5.1 The Hazardous Chemical Safety Seminar
(Continued)

- Chemical Waste Disposal
- Cryogenic Liquids and Compressed Gases
- Labelling, MSDS
- The Safety Audit
- Response to Emergency Situations, Decontamination, Emergency Equipment

SUMMARY - 4:30 p.m.

Course Instruction

The teaching staff are all highly trained chemists with a variety of disciplinary backgrounds. Two of these professionals conduct each class. Each brings a special expertise and his or her own personal teaching methods to the lecture periods and demonstration workshops.

**Who Should Attend

Industry - Environmental Engineers, Scientists, Lab Managers, Firefighters, Hygienists, Insurance Underwriters, Transportation Managers, Production Supervisors, Hazardous Waste Managers, Purchasing Agents, Training Directors, Safety Directors, Facilities Managers

Education - Chemistry Department Chairpersons, Researchers, Storeroom Personnel, Lab Directors, Lab Supervisors

Clinical - Lab Supervisors, Medical Technicians, Safety Directors

Government - Scientists, Engineers, Regulatory Agency Inspectors, State and Federal EPA Representatives, Military Base Personnel

3.5.2 The Hazardous Chemical Spill Response Workshop

Agency: J.T. Baker Chemical Company
Office of Safety Training
Phillipsburg, N.J. 08865
201-859-2151

Contact Person: Carol Morris or William Norton

Clients: See Below**

Duration: 2 days

Frequency: June 13-14,1985, September 16-17, 1985

Location: Vancouver

Cost: $350 U.S.

Course Outline:

First Day 8:30 a.m.

- Registration
- Introduction - Definition of a Spill
- Spill Response Procedures
- Identifying the Spilled Material
- Chemical Safety Review - Labelling, Flammables, Corrosives, Toxics

LUNCH - 12:00 Noon

- Personal Protective Equipment
- Spill Control Media
- The Spill Response Team
- Decontamination Procedures
- Hazardous Waste Management

SUMMARY - 4:30 p.m.

Second Day 8:30 a.m.

- Chemical Spill Health and Safety Effects
- Discussion of Outdoor Exercise

OUTDOORS

- Firefighting
- Personal Protective Equipment Use
- Spill Response Demonstration

3.5.2 The Hazardous Chemical Spill Response Workshop
(Continued)

- Spill Response Practice - Flammable Liquids (Hexane), Acids (Hydrochloric Acid)

LUNCH - 12:00 noon

- Spill Response Practice (cont'd.) - Caustics (Sodium Hydroxide), Unknowns
- Cleanup, Decontamination, Site Closure
- Critique of Outdoor Exercise, Review

SUMMARY - 4:30 p.m.

Course Instruction

The teaching staff are all highly trained chemists with a variety of disciplinary backgrounds. Two of these professionals conduct each class. Each brings a special expertise and his or her own personal teaching methods to the lecture periods and demonstration workshops.

**Who Should Attend

Industry - Environmental Engineers Scientists, Lab Managers, Firefighters, Hygienists, Insurance Underwriters, Transportation Managers, Production Supervisors, Hazardous Waste Managers, Purchasing Agents, Training Directors, Safety Directors, Facilities Managers

Education - Chemistry Department Chairpersons, Researchers, Storeroom Personnel, Lab Directors, Lab Supervisors

Clinical - Lab Supervisors, Medical Technicians, Safety Directors

Government - Scientists, Engineers, Regulatory Agency Inspectors, State and Federal EPA Representatives, Military Base Personnel

3.5.3 Safety for Supervisors

Agency: J.T. Baker Chemical Company
Office of Safety Training
Phillipsburg, N.J. 08865
201-859-2151

Contact Person: Carol Murris or William Norton

Clients: Managers and Supervisors

Duration: 2 days

Frequency: See below

Location: Ottawa - April 22-23/85, November 7-8/85
Toronto - April 22-23/85, November 4-5/85
Calgary - June 24-25/85
Vancouver - June 27-28/85

Cost: $495 U.S. (less for additional attendees)

Course Outline:

Available in February, 1985 from the J.T. Baker Chemical Company.

Course Instruction

As above.

Who Should Attend

Managers, supervisors and advisors in the fields of chemical, electrical, mechanical and laser technologies.

3.6 Dangerous Goods Awareness Seminar

Agency: Training and Education
Emergency Planning Canada
Federal Study Centre
Baskin Drive
Arnprior, Ontario K7S 3H2

Contact Person: F.D. Cooper - Regional Director Emergency Planning Canada Victoria, B.C. ph. 388-3621

Clients: Fire, Police, EMO, Environment, Ambulance

Duration: 4 ½ days

Frequency: January 21-25/85, February 4-8/85, March 4-8/85

Location: Arnprior, Ontario

Cost: Covered by Emergency Planning Canada

Course Outline:

(1) The nature of the various classes of dangerous goods and how to interpret the labels and placards that will be required by the forthcoming Transportation of Dangerous Goods Regulations.

(2) Unusual hazards that dangerous goods may present in transportation incidents, such as BLEVE's, etc.

(3) Precautions and special considerations necessary for handling dangerous goods incidents.

(4) Assistance available and how to use it, including CANUTEC.

(5) Studies of actions taken by emergency personnel and others in response to some actual transportation incidents in the air, sea and land modes, form which lessons can be learned.

(6) Planning for emergencies.

(7) Exercises analyzing emergency response situations - case studies.

3.7 Carriage of Dangerous Goods by Air

Agency: Pacific Western Airlines Trade School
P.W.A. Ltd.
Vancouver, B.C. V2B 1V2
ph. 273-6262

Contact Person: Michael J. Farrel (Customer Service Instructor)

Clients: see below*

Duration: 3 days Basic

Frequency: On a demand basis (schedule available on request)

Location: variable

Cost: $350 (group rates available)

Course Outline:

Duration: 3 days - Basic
1 day - Counter Personnel, Flight Attendants, Pilots

Equipment: 35 minute video
"IATA Dangerous Good Regulations"
4 Self-Teach booklets
1 Competency Check

Content: History of Regulations
How to use Regulations
Applicability - Basics
Responsibilities
Training Requirements
Aircraft Limitations

Classification of Dangerous Goods
Class 1 through 9
Dangerous Goods Forbidden

Dangerous Goods List
Alphabetical List of Dangerous Goods
Numberical List of Dangerous Goods

3.7 Carriage of Dangerous Goods by Air
(Continued)

Packing Instruction

UN/ICAO

IATA Transitional Packing

Packaging Specifications and Performance Tests

UN/ICAO

IATA

Availability in Canada

Marking and Labelling

Label identification

Documentation

Shippers Declaration
Air Waybill
Competent Authorities (Radioactive Material)
Acceptance Checklist

Handling

General
Acceptance

Storage
Loading
Inspection

Emergencies/Incidents

M.O.T./Reporting Procedures
Emergency Response Guide

Canutec

Competency Check

90% passing grade

Method

Self-teach booklet inter-dispersed with formal classroom presentation. Theory with as much practical usage of regulations as possible.

*Who should attend

Those persons involved in handling Dangerous Goods for shipment by Air:

Shippers, Packers, Warehouseman, Forwarders, Brokers, Air Carriers, Couriers

3.8 Transportation of Dangerous Goods Training Course

Agency: R.C.M. Police
657 West 37th Avenue,
Vancouver, B.C. V5Z 1K6
604-666-2901

Contact Person: Corporal D. Garrett, Course Co-ordinator

Clients: R.C.M.P. supervisors, patrol constables, civilian telecommunication personnel. As space allows - fire and/or other emergency response personnel and local transportation and industry personnnel.

Duration: 1 day

Frequency/ Location: This course has been offered on a regular basis at many locations during the past year, however, now that nearly all field personnel have been trained, it is expected that future courses will only be conducted as required for new personnel. Locations will likely be centralized in areas such as Prince George, Kelowna, Kamloops, etc. Dates are indeterminable.

Cost: None

Course Outline:

- the tranportation of dangerous goods
- identifying dangerous goods in transit
- classification, labelling, and placarding of dangerous goods
- environmental protection
- emergency planning
- emergency response sources
- summary

NOTE: EEB has instructors guide to course and a copy of VHS tape used in course.

3.9 Lambton College (Sarnia, Ontario) - Summary of Courses

Lambton College started its Safety and Environmental Programs in 1983.

The program was initiated by the petroleum and chemical industries who approached the college with the request that it create courses in the area of safety training and emergency response.

The college's goal is to become the emergency training centre for Canada.

List of Courses Available through Lambton College

Petroleum Tanker Safety	3.9.1
Chemical Carrier Safety	3.9.2
Transportation of Dangerous Goods Basic Course	3.9.3
Transportation of Dangerous Goods Emergency Course	3.9.4
Tank Truck Rollover	3.9.5
Inland Oil Spill Response	3.9.6
Major Oil Spill Control	3.9.7

3.9.1 Petroleum Tanker Safety

Agency: Lambton College of Applied Arts and Technology
P.O. Box 969
Sarnia, Ontario N7T 7KA
519-542-7751

Contact Person: Josh Litszyc (Safety and Environmental Programs)

Duration: 5 days

Frequency: 1985: January 21-25, August 19-23, November 18-22

Location: Sarnia

Cost: $575.00

Course Outline:

Applied Science
- physical and chemical properties of crude oil and distillates carried in bulk
- saturated vapour pressure/temperature, boiling point, flash point, flammable range
- uses of different qualities of crude
- principle of controlled cargo tank atmosphere
- static electricity during loading, discharging, tank washing, electrical storm
- tank coatings in relation to gas retention
- gas concentration at deck level

Regulation and Codes of Practice
- safety regulations ship and shore
- local, national, international codes and regulations
- guide to helicopter/ship operations

Safety Practices and Equipment
- use of protable and fixed measuring instruments
- function of combustible gas indicators and oxygen analyzers
- procedures for entry into dangerous spaces
- permits and checklists
- rescue techniques and supervision
- protective clothing and equipment

3.9.1 Petroleum Tanker Safety
(Continued)

Oil Pollution (sea and air)
- effects on human and marine life
- conditions affecting dispersal of released oil
- chemical dispersing agents and their use
- air pollution and vapour emission control
- clean sea code - international conventions

Fire Fighting
- prevention and detection equipment on ship and jetty
- fire fighting procedures
- equipment maintenance

Emergency Procedures
- pre-planning of emergencies
- remote controls for pumping equipment
- action in event of a fire, collision, grounding, spillage, failure of services essential to cargo
- International Safety Guide for Oil Tankers

Inert Gas System
- maintenance, monitoring
- construction and principles of operation
- warning systems
- safety considerations

Cargo Handling System
- piping arrangements
- operation and practical aspects of cargo pumps
- eductors
- control equipment for draining
- bunker systems

Petroleum Tanker Design
- crude carriers, product carriers
- O.B.O./O.O. safety aspects of design

3.9.1 Petroleum Tanker Safety
(Continued)

Development of Petroleum Tankers
- evolution of petroleum tankers
- ship/jetty interface
- safety record of petroleum tankers

Safety in Tank Cleaning
- tank conditions
- static generation
- controllable atmosphere
- precautions and procedures

Crude Oil Washing
- washing systems
- cargo pump eductors
- checks during washing/aborting crude oil washing

Operating Procedures
- preplanned loading and discharging procedures
- interruption of operation
- safety considerations
- communications
- inerting and purging operations
- ship to ship transfer

3.9.2 Chemical Carrier Safety

Agency: Lambton College of Applied Arts and Technology
P.O. Box 969
Sarnia, Ontario N7T 7KA
519-542-7751

Contact Person: Josh Litszyc (Safety and Environmental Programs)

Clients: The Chemical Carrier Safety Course is designed for chemical tanker officers and terminal supervisors, giving a comprehensive introduction to the principles involved in the safe loading, transportation and discharging of potential hazardous chemicals.

Duration: 5 days

Frequency: 1985: February 25-March 1, July 29-August 2, October 28-November 1

Location: Sarnia

Cost: $575.00

Course Outline:

The course content meets the requirements of regulation V/2 of the I.M.O.S.T.C.W. Convention adopted by the International Conference on Training and Certification of Seafarers, 1978.

Conference Sessions

Classroom discussions include the following topics:

- the development of chemical and tanker design and construction
- physical and chemical characteristics of chemicals carried in bulk
- potential hazards: flammability, explosion, sources of ignition
- basic terminal functions associated with shoreside operation during marine cargo handling
- correct operation and safety procedures to control potential hazards of fire and explosion
- contingency plans for ship emergencies, equipment failure, ship/shore and ship/ship liasons
- instruments and control systems in chemical tankers

3.9.2 Chemical Carrier Safety
(Continued)

- gas testing equipment - precautions for vessel entry
- use of fire fighting equipment on chemical tankers
- Canadian and international regulatory guides and codes pertaining to chemical tankers
- use and maintenance of emergency breathing apparatus
- health: toxicity and hazards
  - prevention of exposure to chemicals
  - effects of acute exposure to chemicals
  - first aid
  - resuscitation and visual aids
- visit to a chemical plant - Marine Terminal

3.9.3 Transportation of Dangerous Goods Basic Course

Agency: Lambton College of Applied Arts and Technology
P.O. Box 969
Sarnia, Ontario N7T 7KA
519-542-7751

Contact Person: Josh Litszyc (Safety and Environmental Programs)

Clients: The Transportation of Dangerous Goods - Basic Course is for people involved with the transportation and handling of hazardous materials, i.e. mainly truck drivers, shipping and receiving personnel.

Duration: 2 1/2 days

Frequency: 1985: April 15-17, May 13-15, November 4-6

Location: Sarnia

Cost: $300.00

Course Outline:

Conference Sessions

Classroom discussions include the following topics:

- classifying dangerous goods in transit
- regulations and regulatory agencies
- characteristics of dangerous goods
  - reactivity and segregation
  - flammability and explosion
- fire fighting theory
- safety precautions - gas testing
  - breathing apparatus
  - protective clothing
- contingency planning - initial action
- communications
- technical assistance availability
- simulations

3.9.3 Transportation of Dangerous Goods Basic Course
(Continued)

Field Exercises

Applications of theories and actual hands on use of equipment and materials is offered in field operations.

- capping cylinders, patching tanks
- transferring from tank cars
- drum and cylinder repairs
- proper use of breathing apparatus, protective clothing and equipment
- incident exercise in extinguishing fires in hazardous materials using a variety of treatments with portable extinguishers

3.9.4 Transportation of Dangerous Goods Emergency Response Course

Agency: Lambton College of Applied Arts and Technology
P.O. Box 969
Sarnia, Ontario N7T 7KA
519-542-7751

Contact Person: Josh Litszyc (Safety and Environmental Programs)

Clients: The training is specifically designed for participants on emergency response teams and professionals working with hazardous materials. The course offers extensive practical training as well as classroom sessions.

Duration: 2 1/2 days

Frequency: 1985: May 27-30, June 24-27, July 22-25, September 23-26, October 21-28

Location: Sarnia

Cost: $460.00

Course Outline:

Conference Sessions

Classroom discussions include the following topics:

- characteristics of dangerous commodities
- potential hazards of fire and explosion
- dangers to environment and health
- use and maintenance of:
  - protective clothing
  - breathing equipment
  - monitoring and detection devices
- coordinating public relations and media relations
- use of portable radios
- initial response procedures
- sources of aid and assistance
- containment and cleanup
- on scene command

3.9.4 Transportation of Dangerous Goods Emergency Response Course (Continued)

Field Exercises

- tank truck rollover:
  - containment
  - capping
  - offloading
- tank railcar derailment:
  - containment and recovery
- LPG railcar derailment:
  - containment and recovery
- Mixed load truck incident:
  - cylinder capping
  - drum patching
  - overpacking
  - product transfer
- fire fighting
- use of breathing apparatus
- recovery of hazardous cargo

3.9.5 Tank Truck Rollover

Agency: Lambton College of Applied Arts and Technology
P.O. Box 969
Sarnia, Ontario N7T 7K4
519-542-7751

Contact Person: Josh Litszyc (Safety and Environmental Programs)

Clients: This course is designed for truck drivers, emergency response personnel, fire fighters, and municipal employees.

Duration: 1 day

Frequency: 1985: March 25, April 22, May 6, June 17, July 15, September 30, October 28, November 25

Location: Sarnia

Cost: $100.00

Course Outline:

Conference Sessions

- classification of dangerous goods in transit
- basic characteristics of dangerous goods
- initial response
- availability of technical assistance
- driver's first response in event of mishap
- highway traffic act, occupational health and safety act as applied to dangerous goods

Field Exercises

- truck rollover
  - containment of product
  - patching
  - transfer and recover
    - hatch cone
    - air drill
    - dam in ditch
- fire extinguisher exercise
- components of truck
  - safety features
  - construction
  - valves

3.9.6 Inland Oil Spill Response

Agency: Lambton College of Applied Arts and Technology
P.O. Box 969
Sarnia, Ontario N7T 7KA
519-542-7751

Contact Person: Josh Litszyc (Safety and Environmental Programs)

Clients: This course is invaluable to industrial and municipal employees concerned with creating contingency plans.

Duration: 3 days

Frequency: 1985: April 28-May 1, August 26-28, October 7-9

Location: Sarnia

Cost: $360.00

Course Outline:

Conference Sessions

- oil - characteristics and behaviour
- oil spill clean up equipment
- oil spill containment
  - on water, creeks
  - on land
- oil spill contamination - ground water
- communications - at spill scene
  - at fire scene
- contingency plan in action
- final clean up and restoration

Field Exercises

- oil fire fighting - use of large and small portable extinguishers
- safety at the scene

3.9.6 Inland Oil Spill Response
(Continued)

- truck spills
  - operation of pumps
  - operation of air drill, hatch cone device
  - blockage of open drains and sewers
  - use of trenches, ditches, sumpholes, sorbent
- boat safety and handling
- boom deployment - use of skimmers, mops, PIMEC equipment
- communications - radio

3.9.7 Major Oil Spill Control

Agency: Lambton College of Applied Arts and Technology
P.O. Box 969
Sarnia, Ontario N7T 7KA
519-542-7751

Contact Person: Josh Litszyc (Safety and Environmental Programs)

Clients: The four day Major Oil Spill Response Course is designed for all land and marine personnel working in the petroleum industry, the transportation industry, as well as emergency personnel in municipalities and government environmental agencies.

Duration: 4 days

Frequency: 1985: June 10-13, July 8-11, August 12-15, September 9-12

Location: Sarnia

Cost: $460.00

Course Outline:

Conference Sessions

The course content deals with large scale marine and land spills. This course parallels subjects covered in the Inland Oil Spill Course and expands the study to include specific situations where two countries share a water boundary, such as the St. Clair and St. Lawrence Rivers. Joint Canada/USA regulations and contingency plans would apply if there was a spill in these waters. Shoreline protection, security, the role of the Canadian Coast Guard, Ministry of the Environment and oil spill legislation is also discussed.

Conference Sessions

- properties and behaviour of oil
- oil spill equipment
- communications
- safety and security at the scene
- shoreline protections
- final cleanup, restoration and debris disposal

3.9.7 Major Oil Spill Control
(Continued)

- spill reporting and documentation
- contingency planning - role of on scene commander
- role of Canadian Coast Guard
- joint USA/CAN contingency plan supplements to the St. Clair and St. Lawrence Rivers
- oil spill legislation - Ministry of the Environment contingency plan
- NEELS/National Emergency Equipment Locator Service computer system
- public relations at the scene
- bird rehabilitation
- oil spill simulation - problem solving

Field Exercises

- boat safety - handling
- boom handling and deployment
- oil recovery equipment
  - skimmer operations
  - applications of sorbents
  - operation of oil mops
- use of auxiliary equipment
  - porta tanks
  - pumps
  - generators
- incident scenario with two teams at different locations
- use of radio equipment

3.9.8 Petroleum Industry Waste Management

Agency: Petroleum Industry Training Service
2115-27th Ave. N.E.
Calgary, Alberta
T2E 7E4

Contact Person: Mr. Wayne Wiebe - Environmental Training Coordinator

Clients: Petroleum Industry Personnel

Duration: 3 days

Frequency: April 1-3/85

Location: Calgary, Alberta

Cost: $275

Content

Designed for field and management personnel involved in the handling and disposal of wastes from drilling, completions testing, and producing and processing operations; transportation, storage, and disposal alternatives.

3.9.9 Transportation and Spill Response for Dangerous Goods

Agency: Petroleum Industry Training Service
2115-27th Ave. N.E.
Calgary, Alberta
T2E 7E4

Contact Person: Mr. W.O. Wiebe - Environmental Training Coordinator
403-230-4501

Clients: Transportation Personnel serving the Petroleum Industry

Duration: 3 days

Frequency: May 6-8/85

Location: Edmonton, Alberta

Cost: $300

Content

Designed for people involved with the transportation of products associated with oil industry operations; Canada's Transportation of Dangerous Goods Regulations; safety and handling; placarding; truck rollover and spill response; containment and cleanup operations; field instruction on use of hatch cone covers, air bags, pumps, valves, and related equipment.